

金星蕨科二新种

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TWO NEW SPECIES OF THELYPTERIDACEAE

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关键词 金星蕨科; 耳羽金星蕨; 具腺凸轴蕨

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耳羽金星蕨 新种 图 1

Parathelypteris auriculata H. G. Zhou et H. Li, sp. nov.

Species *P. angularilobae* (Ching) Ching et *P. hirsutipiti* (Clarke) Ching affinis, differt ab ambobus lamina oblonga, segmento basilari antico pinnae manifesto majoriore auriformi, postico usque 2 mm e rhache separato, pinna pinnatilobata apice rotundata vel acuta, vena in segmento 2—3-juga; a priore venulis subtus glandulis coccineis petiolulatis obovatis vel ellipticis sparsibus; a posteriore indusiis dorse pilosissimis, venulis subtus glandulis petiolulatis obovatis vel ellipticis sparsibus.

Planta 30—40 cm alta. Rhizoma ascendens, 0.5 cm diam., castaneum, sparse pilosum, frondibus caespitosis. Stipes 16—22 cm longus 1—2 mm diam., supra sulcatus, basi castaneus pilis longis aciformibus ravidis vel brunneis patentibus 8—10-cellularibus dense praeditus, sursum stramineus, pilis aciformibus unicellaribus et 2—3-cellularibus sparse praeditus. Lamina oblonga 17—20 cm longa, 6—7 cm lata, basi rotundata infra apicem acuminatum pinnatifidum pinnato-pinnatilobata. Rhachis straminea supra sulcata dense pilosa, infra sparse pilosa. Pinnae usque 10-jugae, omnino fere aequales 3—3.5 cm longae 0.7—1 cm latae, 1.5—2 cm inter se separatae alternae paulo obliquae lanceolatae vel falcatae pinnatilobatae, brevissime petiolulatae, basi inaequales antice truncatae auriculares, postice truncatae usque 2 mm e rhache separatae, apice rotundatae vel acutae, margine pinnatilobatae. Costa straminea supra sulcata pilis ravidis brevibus dense praedita infra elevata sparse pilosa. Segmenta usque 8-juga patentia oblonga apice truncata undulata, margine integra vel undulata ciliata, basilari antico manifesto

majoriore auriformi supra rhachim obtegenti, 0.4—0.5 cm longo, 0.4 cm lato, cetera multo minora, 0.2—0.3 cm longa, 0.2—0.3 cm lata. Venae in segmento pinnatae, venulis simplicibus, ad margineum, 2—3—jugis, in segmento basilari antico usque 4—jugis, supra inconspicuis, glabris, infra conspicuis paulo elevatis, pilis brevibus et glandulis coccineis petiolulatis obovatis vel ellipticis sparse praeditis. Pagina frondis textura in sicco flavescens viridis, grosse chartacea, supra glabra infra secus venulam pilosa. Sori rotundati mediali, 1—2—jugi pro segmento; indusia reniformia, crasse membranacea brunnea margine undulata, dorse pilosissima. Sporae reniformes; perisporia plicis laxae reticulatis.

Guangxi (广西): Wuming Xian (武鸣县), Damingshan (大明山), alt. 1300 m, in sandstone area, under evergreen broadleaf forest, Zhou Hou-gao (周厚高) 1522 (Typus, GXAC, 广西农学院植物标本室), 11, IX, 1989.

植株高 30—40cm。根状茎斜升，直径 5mm，栗色，疏生针状毛，叶簇生。叶柄上面有沟槽，长 16—22cm，直径 1—2mm，基部栗色，密被平展的灰白色或棕色的 8—10 个细胞组成的长针状毛，向上禾秆色，疏生单细胞或 2—3 细胞组成的针状毛。叶片矩圆形，长 17—20cm，宽 6—7cm，一回羽状（羽片浅裂），基部圆形，顶端羽裂渐尖。叶轴禾秆色，上面具沟槽，密被针状毛，下面疏生针状毛。羽片达 10 对，几等大，长 3—3.5cm，宽 0.7—1cm，相距 1.5—2cm，互生，略斜展，披针形或镰刀形，羽状浅裂，略有短柄，基部不对称，上侧截形并呈耳状凸起，下侧截形，远离叶轴达 2mm，顶端圆头或急尖头，两侧羽状浅裂。中肋禾秆色，上面具沟槽，密被灰白色短针状毛，下面隆起，疏生针状毛。裂片达 8 对，平展，矩圆形，顶端截形，波状，两侧全缘或波状，具睫毛，基部下侧裂片最大，耳状突起，常覆盖叶轴，长 0.4—0.5cm，宽 0.4cm，其余的远较小，长 0.2—0.3cm，宽 0.2—0.3cm。叶脉羽状，侧脉单一，直达叶边，2—3 对，羽片基部下侧裂片可达 4 对，侧脉上面不明显，光滑，下面明显，稍突起，疏生短针状毛和椭圆形或倒卵形的具短柄的深红色腺体。叶干后黄绿色，厚纸质，上面光滑，下面叶脉上疏具针状毛。孢子囊群圆形，中生，每裂片 1—2 对。囊群盖肾形，厚膜质，棕色，边缘波状，背面密生针状毛。孢子肾形，周壁具疏网状皱褶。

本种近钝头金星蕨 *Parathelypteris angulariloba* (Ching) Ching 和毛脚金星蕨 *P. hirsutipes* (Clarke) Ching，不同于二者在于叶片为矩圆形，羽片基部下侧裂片显著较大，耳形，下侧裂片远离叶轴（达 2mm），羽片羽状浅裂，顶端圆头或急尖头，每裂片叶脉 2—3 对；不同于前者还在于叶脉下面疏生具柄的椭圆形或倒卵形的深红色腺体；不同于后者还在于囊群盖背面密生针状毛，叶脉下面疏生具柄的椭圆形或倒卵形（非圆球形）的腺体。

具腺凸轴蕨 新种 图 2

Metathelypteris glandulosa H. G. Zhou et H. Li, sp. nov.

Species *M. laxae* (Franch. et Sav.) Ching affinis, differt lamina subtus et indusio dorso glandulis sphaericis sessilibus auranticis aequiliter disposito, indusio dorso glandulis iis laminae similibus, segmento apice obtuso, paleis rhizomatis et basis

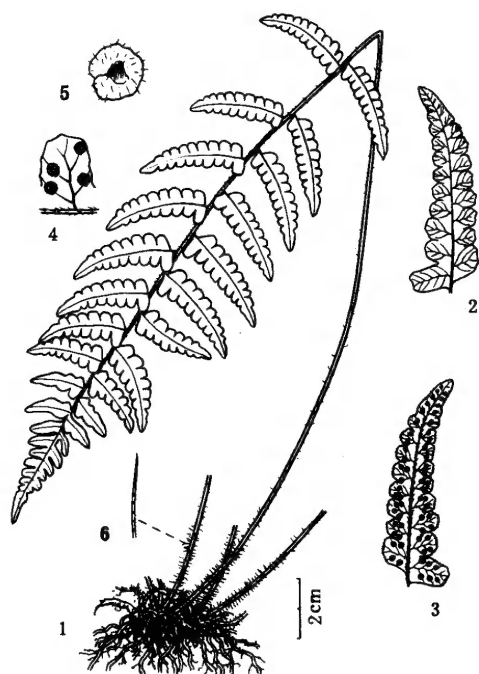


图 1. 耳羽金星蕨 *Parathelypteris auriculata* H. G. Zhou et H. Li

1. 植株外形; 2. 叶片中部羽片近轴面; 3. 叶片中部羽片远轴面; 4. 裂片, 示孢子囊群着生情况; 5. 囊群盖; 6. 叶柄下部的多细胞毛。(廖信佩绘)

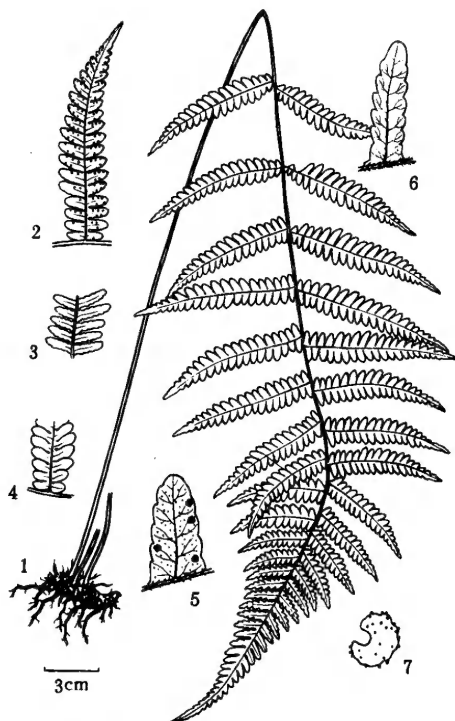


图 2. 具腺凸轴蕨 *Metathelypteris glandulosa* H. G. Zhou et H. Li, Sp. nov.

1. 植株外形; 2、3、4. 羽片外形示分裂深度及裂片的疏密; 5. 裂片远轴面 (示叶脉、孢子囊群形态及着生位置, 叶背腺体); 6. 裂片示近轴面; 7. 囊群盖及其腺体。(廖信佩绘)

stipitis fere glabra margine raro glandulosa.

Planta 40—70 cm alta. Rhizoma repens, 0.3—0.5 cm diam., atrocastaneum, pilis brevibus ravidis et paleis angustis lanceolatis brunneis fere glabris margine raro glanduliferis sparse praeditum, frondis approximatis raro remotis. Stipes supra sulcatus, 15—30 cm longus, 1—2 mm diam., basi atro-castaneus, paleis et pilis brevibus iis rhizomatis similibus sparse praeditus, sursum stramineus, fere glaber. Lamina oblonga, 20—35 cm longa, 13—18 cm lata, basi non angustata vel pinna basilari paulo abbreviata, infra apicem pinnatifidum acuminatum pinnato-pinnatifida vel pinnato-bipinnatifida. Rhachis subtus glabra sulcata dense breviter pilosa. Pinnae 10—15-jugae, inter se 2—5 cm remotae alternae vel oppositae, obliquae, epetiolatae vel brevissime petiolatae, lanceolatae vel falcatae, (4—) 6—10 cm longae 1.5—2 cm latae basi rotundatae vel subcordatae, apice longe acuminatae, pinnatipartitae vel bipinnatifidae. Costa straminea utrinque elevata, supra pilis brevibus densis subtus pilis brevibus sparsis praedita. Segmenta 10—15-juga opposita vel alterna patentia vel paulo obliqua, 1—2 mm remota

vel contigua inter se oblecta, oblonga vel anguste oblonga, 1—1.5 cm longa, 0.3—0.4 cm lata aliquando basalibus discedentibus, margine sparse obtuse serrata vel pinnatilobata, sparse ciliata, apice obtusa. Segmenta ultimi ordinis deltoidae obliqua. Venae in segmento pinnatae, venulis furcatis utrinque conspicuis, supra sparse breviter pilosis subtus fere glabris vel secus costam sparse brevissime pilosis. Pagina frondis textura in sicco chartacea, flavescente viridis, utrinque inter venulam glabra, subtus glandulis sphaericis sessilibus auranticis aequiliter disposita. Sori rotundati supramediali; indusia reniforma membranacea flavida margine undulata, glabra, glandulis iis laminae similibus. Spora reniformis; perisporia laxa reticulatis, exinia sublaeves.

Guangxi (广西): Ningming Xian (宁明县), Paiyangshan (派阳山), alt. 300m, in gorge, under evergreen broad-leaf forest, Li Hua (黎桦) 1102 (Typus, GXAC, 广西农学院植物标本室; Isotypus, PYU, 云南大学蕨类标本室), 6, II, 1988; Shanjiang Xian (三江县), Zhoupinkou (周坪口), alt. 200 m, in sandstone gorge, under shrubs, Zhou Hou-gao (周厚高) 1619, 1620, 13, II, 1990; ib. Zhou Hou-gao 1672, 18, II, 1990.

植株高 40—70cm。根状茎横走，直径 0.3—0.5cm，栗黑色，疏被灰白色短针状毛和狭的披针形，棕色，几光滑，边缘偶具腺体的鳞片；叶近生，稀远生。叶柄上有沟槽，长 15—30cm，直径 1—2mm，基部栗黑色，疏生同于根状茎上的鳞片和短针状毛，向上禾秆色，近光滑。叶片长圆形，长 20—35cm，宽 13—18cm，基部不变狭或仅基部一对羽片略缩短，顶端羽裂渐尖，一回羽状复叶（羽片 1—2 回羽裂）。叶轴下面光滑，上面具沟槽，密生短针状毛。羽片 10—15 对，间距 2—5cm，对生或互生，斜展，无柄或具极短的柄，披针形或镰刀形，长 (4) —6—10cm，宽 1.5—2cm，基部圆形或浅心形，顶端长渐尖，羽状深裂或二回羽裂。中肋禾秆色，两面突起，上面密被短针状毛，下面疏生短针状毛。裂片 10—15 对，对生或互生，平展或略斜展，相距 1—2mm 或密接且相互覆盖，矩圆形或狭矩圆形，长 1—1.5cm，宽 0.3—0.4cm，有的羽片基部裂片分离，边缘有疏钝锯齿或羽状浅裂，疏生睫毛，顶端钝头。末回裂片三角形斜向上。裂片上叶脉羽状，侧脉二叉，两面明显，上面疏具短针状毛，下面近光滑或主脉上疏生极短的针状毛。叶干后纸质，黄绿色，两面脉间无毛，叶下面均匀着生圆球形橙色无柄腺体。孢子囊群圆形，生上侧叶脉的中上部；囊群盖肾形，膜质，浅黄色，边缘波状，无毛，有腺体，与叶下面的腺体相似。孢子肾形，周壁疏网状，外壁近光滑。

本种近于疏羽凸轴蕨 *Metathelypteris laxa* (Franch. et Sav.) Ching, 区别在于叶片远轴面均匀着生圆球形无柄橙色腺体，囊群盖背面有同样的腺体，裂片顶端钝头，根状茎及叶柄基部的鳞片近无毛，边缘偶有腺体。

通过对黎桦 1102 号 10 份标本及周厚高 1619、1620、1672 诸号共 20 余片叶的观察研究，本种特征明显，而形体变化幅度较大，尤其是羽片分裂的程度，有时深裂几达中肋，甚至基部 1 对裂片分离。